

CLAIMS

1. (amended) A liquid crystal display comprising:

5 a display portion in which a plurality of pixels are two-dimensionally arranged at intersecting points of gate lines as many as a plurality of rows and signal lines as many as a plurality of columns which are wired in a matrix shape; and

10 a plurality of driver circuits for applying a signal potential to each pixel in said display portion through the signal lines of said plurality of columns,

15 characterized in that when the numbers of output terminals of said plurality of driver circuits and each of the signal lines of said plurality of columns are arranged in order so as to have a correspondence relation, if a fraction occurs in the signal lines of said plurality of columns, the number of output terminals of one of said plurality of driver circuits is set to said fraction.

20 2. A display according to claim 1, characterized in that said plurality of driver circuits are driver ICs arranged in an outside of a transparent insulating substrate on which said display portion is formed.

25 3. A liquid crystal display comprising:

3. a display portion in which a plurality of pixels are two-dimensionally arranged at intersecting

5/15/99
B1

points of gate lines as many as a plurality of rows and signal lines as many as a plurality of columns which are wired in a matrix shape; and

5 a plurality of driver circuits for applying a signal potential to each pixel in said display portion through the signal lines of said plurality of columns,

characterized in that the number of output terminals of each of said plurality of driver circuits is set to a measure of the total number of signal lines of said plurality of columns.

10

4. A display according to claim 3, characterized in that the number of output terminals of each of said plurality of driver circuits is set to a same number.

15

5. A display according to claim 3, characterized in that the number of output terminals of each of said plurality of driver circuits is set to a power of 2.

20

6. A display according to claim 3, characterized in that said plurality of driver circuits are driver ICs arranged in an outside of a transparent insulating substrate on which said display portion is formed.

25

7. A display according to claim 3, characterized by comprising:

a memory circuit for temporarily storing data

to be written into said plurality of driver circuits;
and

5 a control circuit for controlling said plurality of driver circuits so as to simultaneously write different data from said memory circuit.

8 A display according to claim 4, characterized in that when a size of a frame portion adjacent to said display portion is specified, the number (n) of output terminals of each of said plurality of driver circuits is determined on the basis of said specified frame size by the number of lines which can be wired into a wiring region of said frame portion.

15 500 AM 9. A display according to claim 8, characterized in that when it is assumed that the total number of signal lines of said plurality of columns which is decided by a display system is set to N, the number of said driver circuits is set to N/n .

20 10. A display according to claim 3, characterized by comprising:

25 time-divisional switches for time-divisionally sending a signal potential which is outputted from each of said plurality of driver circuits to the signal lines of said plurality of columns.

5 11. A display according to claim 10,
characterized in that a leading waveform and a trailing
waveform of a signal output waveform of each of said
plurality of driver circuits are symmetrical with
respect to a time base.

10 12. A display according to claim 10,
characterized in that a time-dividing number of said
time-divisional switches is equal to 3.

15 13. A display according to claim 12,
characterized in that a period of time which is
selected by said time-divisional switches is equal to
or shorter than $1/3$ of a horizontal scanning period.

20 14. A display according to claim 13,
characterized in that a leading time and a trailing
time of each of said plurality of driver circuits are
equal to or shorter than the period of time which is
selected by said time-divisional switches.

25 15. A display according to claim 13,
characterized in that a blanking period which is caused
for the period of time selected by said time-divisional
switches is equal to or shorter than (a horizontal
scanning period - the period of time selected by the
time-divisional switches $\times 3)/3$.

sub A27

16. A display according to claim 15,
characterized in that said plurality of driver circuits
have a function to stop the operation of their output
circuit for said blanking period.

5

Sw CS

17. (amended) A display according to claim 12,
characterized in that said plurality of driver circuits
generate a signal potential so as to correct shift
amounts of curves of voltage-transmittance
characteristics of R (red), G (green), and B (blue) by
diving to said time-divisional switches.

10

18. A display according to claim 12,
characterized in that in a 1H (H denotes a horizontal
scanning period) inversion driving or a 1H common
inversion driving, the signal line which is selected
first by said time-divisional switches is a line of
blue, the signal line which is selected at the second
time is a line of green, and the signal line which is
selected at the third time is a line of red.

15

20

19. A display according to claim 10,
characterized in that in a dot inversion driving, the
signal line which is selected first by said time-
divisional switches is a line of red, the signal line
which is selected at the second time is a line of
green, and the signal line which is selected at the

25

third time is a line of blue.

20. (added) A display according to claim 12,
characterized in that time-division of said time-
5 divisional switches distribute signals to R(red),
G(green), and B(blue) constituting one pixel.

ADD AB
B3

ADD C8

09/424544
420 Rec'd PCT/PTO 24 NOV 1999

Statement under Article 19(1)

After carefully reviewing claim 1, it turned out to be vague. As a result, claim 1 seems to have a relation "X" with JP, 4-12318, A (Sanyo Electric Co. Ltd.). However, since the technical feature of the invention is different from that of X, the applicant has made it clear.

The applicant has made an amendment to restrict claim 17 to distinguish it from JP, 9-319334, A (International Business Machines Corporation).

Claim 20 is one having further restriction to claim 12.

15

20